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| 10/713,522 | 11/14/2003 | Krishnan Chari | 85501KNM | 9951 |

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| EXAMINER | |
|---|---|
| HAQ, SHAFIQUL | |

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| 1641 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/713,522 | CHARI ET AL. | |
| | Examiner | Art Unit | |
| | Shafiqul Haq | 1641 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *08 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) *12-33* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. In view of the appeal brief filed on 1/8/07, PROSECUTION IS HEREBY REOPENED. New ground of rejection is set forth below. The prosecution has been reopened to address the issues raises of applicant's arguments such as the applied prior art fails to teach ionized form of the compound and thus are not a anticipatory reference.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

### *Status of claims*

2. Claims 1-11 are pending.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (EP 1127707 A1).

Chen et al. disclose a coating composition comprising a dye-containing polymeric latex and gelling agent (e.g. gelatin) (see claims 1 and 5) and at least one of the nickel metallized dye of the reference (see paragraph [0025]) is the same as the dyes (formula (I) and formula (II)) of instant application when in the compound of instant application, $R_5$=alkyl and $R_4$=alkoxycarbonyl.

The only difference between the compound of Chen et al. and the compound of instant application is the ionized and neutral form of the hydroxyl substitution on the aromatic ring attached to pyridine ring of the compounds. In Chen et al. it is hydroxyl (-OH) group and in the compound of formula (I) and (II), it is displayed as ionized form of hydroxyl ($-O^-$) group. However, whether the hydroxyl group would be in ionized form or neutral from would depend on the pH of the suspension solution and an ionized form would be obvious at a basic pH in which hydrogen ion concentration in the medium is low and Chen et al. disclose suspending the dye in a solution of pH 8.0 (i.e. a basic solution) (see paragraph 0026) adjusted with sodium hydroxide. Therefore, one of ordinary skill in the art would expect the dye of Chen et al. to be in ionized form ($-O^-$) at the basic pH of 8.0 and therefore, the dye of Chen et al. at the basic pH either anticipates or are obvious over the compounds of Formula (I) or (II) of instant application and the low fluorescent property of the dye would also be obvious as the dyes are the same or are very similar.

As for claims 9-11, Chen et al. disclose the microspheres to be comprised of synthetic polymeric materials (paragraphs [0014-0016].

With respect to the recitation "for making a protein microarray" in line 1 of claim 1, the recitaion has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 195

5. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being obvious over Qiao et al. (US 5334575) in view of Chen et al (EP 1127707 A1).

The applied reference has a common inventors with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and

that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Qiao et al disclose a microarray coating composition comprising a gelling agent (column 3, lines 2-5 and column 4, lines 20-41) and microsphere (beads) containing a magenta dye (column 4, lines 42-63 and column 9, lines 27-33). As for claims 6-8, Qiao et al disclose beads size of 1 to 50 microns (column 6, lines 19-25) and as for claims 9-11, Qiao et al also disclose the beads comprising polystyrene (column 9, lines 6-11).

With respect to the recitation "for making a protein microarray" in line 1 of claim 1, the recitaion has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 195).

Qiao et al disclose magenta dye but fail to disclose nickel metallized dye of formula (I) and formula (II) of present application.

As discussed above chen et al. disclose a coating composition composition comprising nickel metalized dyes and the structure of the dye is very similar or same as the dye of instant application. Chen et al. also disclose that the nicked metalized magenta dye is superior to other dyes because the dyes have improved light and dark stability (paragraph [0041]).

Therefore, given the above fact that magenta dye of chen et al. is useful for its improved light and dark stability, it would have been obvious at the time of the invention to a person of ordinary skill in the art to substitute equivalent magenta dye of Chen et al in the coating composition of Qiao et al, with the expectation of obtaining a microarray coating composition with a more stable dye.

***Response to Argument***

6. Applicant's arguments filed 1/8/07 have been fully considered, and are persuasive to overcome the rejections over Chen et al. and Evans et al. applied under 35 USC 102 and rejections over Evans et al. applied under 35 USC 103. However, new ground of rejections has been applied under 35 USC 103 which are described in paragraphs 4 and 5 of this office action.

***Conclusion***

7. No claims are allowed.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shafiqul Haq whose telephone number is 571-272-6103. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le can be reached on 571-272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SHAFIQUL HAQ
EXAMINER
ART UNIT 1641

LONG V. LE 05/25/17
SUPERVISORY PATENT EXAMINER
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